



US Army Corps  
of Engineers  
Kansas City District

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**KANSAS CITY DISTRICT  
CORPS OF ENGINEERS  
and the  
REVEAUX LEVEE DISTRICT**

**Public Law 84-99 of the Flood Control Act of 1944  
Levee Rehabilitation – NEPA Review, Environmental  
Assessment & Finding of No Significant Impact**

**REVEAUX LEVEE DISTRICT,  
ITEM NO. 33, NON-FEDERAL,  
EMERGENCY LEVEE REHABILITATION PROJECT**

**Missouri River  
Callaway County, Missouri**

**May 2008**



DEPARTMENT OF THE ARMY  
KANSAS CITY DISTRICT, CORPS OF ENGINEERS  
700 FEDERAL BUILDING  
KANSAS CITY, MISSOURI 64106-2896

## Finding of No Significant Impact

Reveaux Levee District  
(Item 33)  
Levee Rehabilitation Project  
Callaway County, Missouri

### Project Summary

The U.S. Army Corps of Engineers, (USACE) Kansas City District, in cooperation with the project sponsor, Reveaux Levee District, propose to construct the Reveaux Levee District Levee Rehabilitation Project, under the authority of Public Law 84-99 of the Flood Control Act of 1944. Three alternatives were considered: (1) Landward levee setback; (2) In-place repairs; and (3) No action. The Corps has identified – Landward Levee Setback as the Recommended Plan. The proposed project would involve repair of severe toe slope erosion with landward levee setbacks at two locations damaged by the flood event of May 2007. The proposed repairs are located in Callaway County, Missouri, near the town of Wainwright, along the right bank of Reveaux Creek. The Reveaux Creek is located on the left bank of the Missouri River between river mile 139.9 and 136.7 (EA Appendix I, Attachment D-1).

### Alternatives

Three alternatives were considered: The Recommended Plan- Landward levee setback, Alternative 2- In-Place Repairs and the No Action Alternative.

**Alternative 1-Recommended Plan:** At Station 305+60 to 308+35, the damaged levee would be repaired with a 700-linear-foot landward setback, with the maximum landward setback being approximately 50-feet from the original levee alignment (EA Appendix I, Attachment D-2). At Station 344+00 to 347+10, damage would be repaired with a 500-linear foot landward setback (EA Appendix I, Attachment-D-2). Levee setback repairs would consist of a total of 8,895 cubic yards of fill and 200 tons of gravel surfacing.

**Alternative 2- In-Place Repairs:** In-place repairs would require re-establishing the lost foreshore/high bank line, along with the riverside levee embankment toe slope. Stone protection would be required along riverward "face" of repaired bank line to prevent erosion. In-place repairs would consist of a combined 17,090 cubic yards of fill and 1,070 tons of stone protection.

## **"No Action" Alternative**

The "No Action" Alternative would involve no construction and the levee would remain in its damaged condition. The No Action alternative would continue to expose public and private infrastructure and agricultural croplands to a high risk level of future flooding.

## **Summary of Environmental Impacts**

The Recommended Plan would not result in any impacts to federally-listed threatened or endangered species or their habitat. No impacts to any properties listed, proposed for listing, or potentially eligible for listing in the National Register of Historic Places are anticipated. However, the Recommended Plan would consist of clearing approximately 0.3 acres of early successional woody vegetation and excavations of 0.5 acres of shrub-scrub wetland during borrow operations. However, the excavation would remove accumulated silt from an historic wetland area and is considered beneficial. In addition, natural plant succession should provide adequate re-vegetation for the woody area utilized for fill. Areas of the existing levee sections damaged by flooding would be temporarily disturbed by the proposed construction activity. The adverse effects associated with the proposed project are long-term/minor associated with loss of agricultural land (approximately one acre) and short term/minor associated with project construction. These minor adverse effects would be greatly offset by restoring the flood risk management capability, and its associated social and economic benefits of the existing levee system. The Recommended Plan meets the project purpose and need of rehabilitating the flood risk management capability, and its associated social and economic benefits of the existing levee system. Of the three (3) alternatives considered, the Recommended Plan has the highest cost/benefit ratio and is consistent with protection of the human environment.

## **Mitigation Measures**

The recommended plan would consist of clearing approximately 0.3 acres of early successional woody vegetation and excavations of 0.5 acres of shrub-scrub wetland during borrow operations. Excavation which removes accumulated silt from historic wetland areas is considered beneficial and would enhance the overall function and value of the aquatic ecosystem. No mast producing trees are anticipated to be impacted by borrow or construction activities. The USACE in cooperation with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service has determined that natural plant succession should provide adequate re-vegetation to these areas. Additionally, the levee setback would allow the newly created blow hole to develop into a functional wetland while also adding approximately one acre to the riverward floodplain; therefore, no mitigation is proposed or warranted.

## **Public Availability**

Prior to a decision on whether to prepare an Environmental Impact Statement, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), dated June 9, 2008 with a thirty-day comment period ending on July 9, 2008 to the public and resource agencies. The Notice was e-mailed to

individuals/agencies/businesses listed on the USACE Regulatory e-mail mailing list. The Notice informed these individuals that the EA and Draft FONSI were available on the USACE webpage or that they could request a hard copy of the EA and Draft FONSI in order to provide comment. One comment was received from the U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat (Appendix I).

Levee rehabilitation projects completed by the Corps under authority of Public Law 84-99 generally do not require the preparation of an Environmental Impact Statement. These projects typically result in long-term social and economic benefits and the adverse environmental effects are typically minor/long-term and minor/short-term construction related. Minor long-term impacts associated with these projects are typically well outweighed by the overall long-term social and economic benefits of these projects. As described above, the recommended plan is consistent with this assessment of typical levee rehabilitation projects completed by the Corps under authority of Public Law 84-99 of the Flood Control Act of 1944.

## Conclusion

After evaluating the anticipated environmental, economic, and social effects of the proposed activity, it is my determination that construction of the proposed Reveaux Levee District Levee Rehabilitation Project does not constitute a major Federal action that would significantly affect the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date:

8/5/08



Roger A. Wilson, Jr.  
Colonel, Corps of Engineers  
District Commander



**DEPARTMENT OF THE ARMY**  
**KANSAS CITY DISTRICT, CORPS OF ENGINEERS**  
**700 FEDERAL BUILDING**  
**KANSAS CITY, MISSOURI 64106-2896**

**EXECUTIVE SUMMARY**

The U.S. Army Corps of Engineers (USACE), Kansas City District, in cooperation with the project sponsor, Reveaux Levee District, proposes to construct the Reveaux Levee District Levee Rehabilitation Project, under the authority of Public Law 84-99 of the Flood Control Act of 1944. The recommended repair action consists of repairs to severe toe slope erosion (sta. 305+60 to 308+35), with an approximately 700-linear-foot-long landward levee setback; and repair of severe toe slope erosion (sta. 344+00 to 347+10), with an approximately 500-linear-foot-long landward levee setback.

The Recommended Plan would not result in any impacts to federally-listed threatened or endangered species or their habitat. No impacts to any properties listed, proposed for listing, or potentially eligible for listing in the National Register of Historic Places are anticipated. However, the Recommended Plan would consist of clearing approximately 0.3 acres of early successional woody vegetation and excavations of 0.5 acres of shrub-scrub wetland during borrow operations. However, the excavation would remove accumulated silt from an historic wetland area and is considered beneficial. In addition, natural plant succession should provide adequate re-vegetation for the woody area utilized for fill. Areas of the existing levee sections damaged by flooding would be temporarily disturbed by the proposed construction activity. The adverse effects associated with the proposed project are long-term/minor associated with loss of agricultural land (approximately one acre) and short term/minor associated with project construction. These minor adverse effects would be greatly offset by restoring the flood risk management capability, and its associated social and economic benefits of the existing levee system. The Recommended Plan meets the project purpose and need of rehabilitating the flood risk management capability, and its associated social and economic benefits of the existing levee system. Of the three (3) alternatives considered, the Recommended Plan has the highest cost/benefit ratio and is consistent with protection of the human environment.

Prior to a decision on whether to prepare an Environmental Impact Statement, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), dated June 9, 2008, with a thirty-day comment period ending on July 9, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on USACE Regulatory e-mail mailing list. The Notice informed these individuals that the EA and Draft FONSI were available on the USACE webpage or that they could request the EA and Draft FONSI in writing, in order to provide comment. One comment was received from the U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat (Appendix I).

Additional information concerning this project may be obtained from Ms. Lekesha Reynolds, Environmental Resources Specialist, PM-PR, Kansas City District - U.S. Army Corps of Engineers, by writing the above address, or by telephone at 816-389-3160.

**NEPA REVIEW  
ENVIRONMENTAL ASSESSMENT  
&  
DRAFT FINDING OF NO SIGNIFICANT IMPACT**

**PUBLIC LAW 84-99  
REVEAUX LEVEE DISTRICT  
LEVEE REHABILITATION PROJECT  
CALLAWAY COUNTY, MISSOURI**

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**PUBLIC LAW 84-99  
REVEAUX LEVEE DISTRICT  
LEVEE REHABILITATION PROJECT  
CALLAWAY COUNTY, MISSOURI**

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**Section 1: INTRODUCTION**

This Environmental Assessment provides information that was developed during the National Environmental Policy Act (NEPA) public interest review of the proposed Public Law 84-99 Reveaux Levee District Levee Rehabilitation Project.

**Section 2: AUTHORITY**

The Kansas City District – U.S. Army Corps of Engineers (USACE), in cooperation with the project sponsor, the Reveaux Levee District, propose to construct the Reveaux Levee District Levee Rehabilitation Project under the authority of Public Law 84-99 of the Flood Control Act of 1944.

**Section 3: PROJECT LOCATION**

The proposed repairs are located in Callaway County, Missouri, near the town of Wainwright, along the right bank of Reveaux Creek. The Reveaux Creek is located on the left bank of the Missouri River between river mile 139.9 and 136.7. The Reveaux levee system consists of approximately 35,876 linear feet of earthen flood control works (FCW) and is located in Callaway County, near the town of Wainwright, Missouri, along the left bank of the Missouri River between river mile 139.9 and 136.7, the left bank of Niemans Branch, and the right bank of Reveaux Creek (Appendix I, Attachment D-1).

**Section 4: GENERAL DESCRIPTION**

The approximately 35,876 linear feet of earthen FCW protects approximately 2,200 acres of agricultural lands (2,180 acres in cropland). Protected facilities include, the town of Wainwright, 5 residences, 6 machine sheds, 5 outbuildings, 4 grain bins, 1 irrigation system, approximately 3.3 miles of State Highway Route 94 and approximately 3.5 miles of asphalt county roads, approximately 2 miles of gravel surfaced County Roads and approximately 1.5 miles of unimproved farm to market roads, approximately 3.3 miles of fiber optic lines, and the OCCI loading dock (See Appendix I, Attachment D-1).

## **Section 5: PROJECT DAMAGES**

The declared flood event on May 6, 2007 caused damages to the Reveaux Levee District flood control works. These damages consist of severe riverside erosion in two reaches, which has resulted in complete loss of foreshore/high bank area, with erosion extending into the levee toe slope at approximate levee stations 305+60 to 308+35 and 344+00 to 347+10.

## **Section 6: PURPOSE & NEED FOR ACTION**

The project purpose and need is to rehabilitate the damaged levee and restore the associated social and economic benefits. Prior to the May 2007 event, the Reveaux Levee District levee provided an approximate 5-year level of flood risk management. In its current damaged state, the Reveaux levee is estimated to provide an approximate two-year level of protection. The existing condition exposes all public and private infrastructure and adjacent agricultural croplands to a high level of risk from future flooding. Failure to restore the flood risk management capability of the levee system would keep area residents livelihood and social well-being in turmoil, subject to the continuous threat of flooding until a level of flood protection is restored. Failure to reconstruct the levee could adversely affect the tax base of the county and municipal government. In addition, loss of jobs and potential losses in agricultural production on lands previously protected by the levee would also be incurred.

## **Section 7: ALTERNATIVES**

Three alternatives were considered: Alternative 1-The Recommended Plan- Landward levee setback, Alternative 2- In-Place Repairs and the No Action Alternative.

**Alternative 1- Recommended Plan:** At Station 305+60 to 308+35, the recommended repair alternative is to repair damage with approximately 700-linear-feet of landward setback, with the maximum landward setback being approximately 50-feet from the original levee alignment (Appendix I, Attachment D-2). At Station 344+00 to 347+10, damage would be repaired with approximately a 500-linear foot landward setback (Appendix I, Attachment D-3). Levee setback repairs would consist of 8,895 cubic yards of fill and 200 tons of gravel surfacing.

Borrow Area (Sta. 293+50) (Appendix I, Borrow map No. 1): Approximately 50% of the borrow material would be obtained by degrading the remaining existing levee segments riverward of the new levee setback. The remainder 0.5 acres of fill would be obtained from a riverside 3.5 acre borrow area (shrub-scrub wetland), which contains a sparse growth of small willows and cottonwood saplings (< 9 inches diameter at breast height). Trees removed would be stockpiled in the borrow area after levee repairs. The designated borrow location is positioned within a previously "environmentally cleared" borrow area that was assessed and used during the 1993 and 1995 repair actions.

Borrow Area (Sta. 342+00-332+00) (Appendix I, Borrow map No. 2): Approximately 80% of the borrow material would be obtained by degrading the remaining existing levee segments riverward of the new levee setback. The remainder 0.3 acres of fill would be obtained from a riverside 2.0 acre borrow area (shrub-scrub habitat), which contains a sparse growth of small willows and cottonwood saplings (< 9 inches diameter breast height). Trees removed would be



stockpiled in the borrow area after levee repairs. The designated borrow location is positioned within a previously "environmentally cleared" borrow area that was assessed and used during the 1993 and 1995 repair actions.

**Alternative 2- In-Place Repairs:** In-place repairs would require re-establishing the lost foreshore/high bank line, along with the riverside levee embankment toe slope. Stone protection would be required along riverward "face" of repaired bank line to prevent erosion. In-place repairs would consist of a combined 17,090 cubic yards of fill and 1,070 tons of stone protection. This would require a total of 5.3 acres of fill from the combination of the borrow areas.

### **"No Action" Alternative**

The "No Action" Alternative would involve no construction and the levee would remain in its damaged condition. The No Action alternative would continue to expose public and private infrastructure and agricultural cropland to a high risk level of future flooding.

## **Section 8: NATIONAL ENVIRONMENTAL POLICY ACT REVIEW**

As part of the NEPA review for the proposed project, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI), dated June 9, 2008, with a thirty-day comment period ending on July 9, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the USACE Regulatory e-mail mailing list. The Notice informed these individuals that the EA and Draft FONSI were available on the USACE webpage or that they could request the EA and Draft FONSI in writing to provide comment. The following comments were received and evaluated from coordination of the Notice:

One comment was received from the U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat (Appendix II).

## **Section 9: AFFECTED ENVIRONMENT:**

The project area consists of agricultural row crop ground located on the Missouri River flood plain between river miles 139.9 and 136.7. Riparian woodlands and shrub-scrub wetlands exist along the Reveaux Creek and Missouri River.

Primary resources of concern identified during the evaluation included: water quality, fish and wildlife, riparian woodlands, wetlands, geologic resources, agricultural activity, archeological and historical resources, flood plain, economics and esthetics. Projects impacts to other resources were determined to be no effect.

## **10: ENVIRONMENTAL CONSEQUENCES:**

### **Water quality**

The Recommended Plan, Alternative 1, could potentially result in minor, temporary construction related adverse impacts to water quality resulting from site runoff and increased turbidity. Potential impacts to water quality as a result of the recommended plan would be avoided and/or minimized to the greatest extent possible by the implementation of Best Management Practices and measures required under the National Pollutant Discharge Elimination System (NPDES).

Best management practices would minimize the incidental fallback of material into the river during construction and would minimize the introduction of fuel, petroleum products, or other deleterious material from entering into the waterway. Such measures could include the use of erosion control fences; storing equipment, solid waste, and petroleum products above the ordinary high water mark and away from areas prone to runoff; and requiring that all construction equipment be clean and free of leaks. To prevent fill from reaching water sources by wind or runoff, fill would be covered, stabilized or mulched, and erosion control measures used as required. A NPDES permit has been obtained for the project (Appendix II). All appropriate measures will be taken to minimize erosion and storm water discharges during and after construction.

Alternative 2 – In-place repairs. The repairs resulting from implementation of this alternative plan would result in minor, temporary, construction related adverse impacts to water quality similar to those describe above.

In the “No Action” Alternative with the absence of the Federal action addressing levee improvements, a high water event could result in the release of a variety of industrial chemicals and substantially impact the natural and human environment within the project area. Avoiding repair actions could result in adverse impacts to water quality from increased levels of nutrient loading and wastes, including runoff of pollutants from industrial sources, petroleum products, and non-point sources of human and animal wastes.

### **Fish and wildlife**

The Recommended Plan, Alternative 1, would result in minor, temporary, construction related adverse impacts to fish and wildlife resources. The impacts to wildlife resources would be related to noise and the removal of 0.3 acres of early successional woody vegetation and 0.5 acres of shrub-scrub wetland during borrow operations. No mast producing trees are anticipated to be impacted by borrow or construction activities. The USACE in cooperation with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service has stated that natural plant succession should provide adequate re-vegetation to these areas. Additionally, any trees removed would be stockpiled in the borrow areas to provide habitat mounds for wildlife. Additionally, the levee setback would allow the newly created blew hole to develop into a functional wetland while also adding approximately one acre to the riverward floodplain, which would provide aquatic habitat for wildlife and aquatic life species. The impacts to fishery resources would be related to potential site runoff, which would be avoided or otherwise minimized through the use of erosion control measures.

Alternative 2 – In-place repairs. The repairs resulting from implementation of this alternative plan would result in similar impacts as described above with the exception that a total of 5.3 acres of shrub-scrub vegetation and wetland would be removed during borrow operations for levee repairs. Therefore, there would be more disturbances to wildlife habitat from this alternative compared to the recommended plan.

The “No Action” Alternative would have minimal effects on fish and wildlife resources. These impacts would arise from flooding within the now unprotected area. Aquatic life species may benefit as more frequent flooding could occur in the now unprotected areas. Other terrestrial organisms could be temporarily displaced or have their habitat degraded by flooding.

### **Threatened and Endangered Species**

The Recommended Plan would have no adverse effects on any Federally-listed threatened or endangered species or their habitat. Pallid sturgeon (*Scaphirhynchus albus*) are found primarily in the Missouri River and Mississippi River. No work is proposed within the Missouri River. Indiana bat (*Myotis sodalis*) roost in trees that tend to be greater than 9 inches diameter breast height during the spring and summer, and hibernate in caves during the fall and winter. Levee work would not impact Indiana bat habitat. No impacts to any state listed threatened or endangered species or their habitat were identified.

Alternative 2 – In-place repairs. The repairs resulting from implementation of this alternative plan would have no adverse effects on any Federally-listed threatened or endangered species or their habitat for the same reasons as described above.

The “No Action” alternative would have no adverse effects on any federally-listed threatened or endangered species or their habitat. No impacts to any state listed threatened or endangered species or their habitat were identified.

### **Riparian Woodlands**

The Recommended Plan, Alternative 1, would remove approximately 0.5 acres of shrub-scrub wetland and 0.3 acres of early successional woodland which consist primarily cottonwoods and willows (less than 9 inches diameter breast height) during borrow operations. However, the USACE in cooperation with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service has determined that natural plant succession should provide adequate re-vegetation to these areas.

Alternative 2 – In-place repairs. The repairs resulting from implementation of this alternative plan would result in similar impacts as described above with the exception that a total of 5.3 acres of shrub-scrub woody vegetation and wetland would be removed during borrow operations for levee repairs. Therefore, there would be more woody vegetation impacted from this alternative compared to the recommended plan.

The “No Action” Alternative could result in increased floodplain vegetation if levees are not repaired and lands are abandoned from farming due to the high risk of flooding.

## **Wetlands**

The recommended plan would consist of excavations of 0.5 acres of shrub-scrub wetland and 0.3 acres of early successional woodland during borrow operations. This work is an action covered under the General Permit No. 41 (Appendix II). In addition, an excavation which removes accumulated silt from historic wetland areas is considered beneficial and would enhance the overall function and value of the aquatic ecosystem. The recommended plan would enhance the existing 0.5 acres of wetland by removing the accumulated silt and woody vegetation and allow the borrow areas to function as seasonally emergent wetlands. Additionally, the levee setback would allow the newly created blow holes to develop into a functional wetlands while also adding approximately one acre to the riverward floodplain.

Alternative 2 – In-place repair. The repairs resulting from implementation of this alternative plan would result in similar impacts as described above with the exception that a total of 5.3 acres of shrub-scrub vegetation and shrub-scrub wetland would be excavated during borrow operations for levee repairs. Therefore, a larger amount of wetlands would be enhanced under this alternative compared to the recommended plan. However, this alternative would not involve a levee setback, therefore, no additional increase to the floodplain would occur.

The “No Action” Alternative could result in benefits to wetlands located behind the breeched levees as these areas would be subject to a new level of future flooding.

## **Agricultural land**

The Recommended Plan, while restoring the level of flood risk management, would have a minor, long term impact on agricultural production. This impact is related to the conversion of approximately one acre of agricultural land to grassed-levee land.

Alternative 2 – Repairs resulting from implementation of this alternative plan would have no impact on agricultural activity or loss of agricultural lands as the levees would be repaired on the existing levee alignment.

The “No Action” Alternative would adversely impact agricultural activity by exposing approximately 2,200 acres of agricultural lands (2,186 acres of croplands) to increased flooding. This loss of agricultural production would have related impacts such as lost income, lower tax base, and decreased land value.

## **Archeological and Historical Resources**

The Recommended Plan would have no impact to sites listed on or eligible for inclusion on the National Register of Historic Places (NRHP). A background check of the NRHP and site location maps identified no previously recorded sites within or near the proposed project areas. In a letter to State Historic Preservation Officer (SHPO), the Corps recommended that the project would have no effect on historic properties and that the project should be allowed to proceed. The SHPO concurred with this determination on December 4, 2007 (Appendix II). The project would be coordinated with appropriate federally recognized Native American tribes (Tribes). If in the unlikely event that archeological material is discovered during project construction, work in the area of discovery would cease, the discovery would be investigated by a qualified archeologist, and the find would be coordinated with SHPO and the Tribes.

Alternatives 2 – Repairs resulting from implementation of the alternative plan would result in no effects to archaeological or historical resources.

The “No Action” Alternative would result in no effects to archaeological or historical resources.

### **Floodplain**

The Recommended Plan would restore an approximately 5-year level of flood protection to the existing Reveaux Levee District levee system, which would equal the level that existed prior to the declared flood event of May 6, 2007. The area is located in the base floodplain and is subject to Executive Order 11988, “Floodplain Management”. In addition, since the proposed levee repair would restore this levee to its near original alignment and pre-flood grade and cross section, no increase in floodwater surface elevations would occur. As the recommended plan would not directly or indirectly support more development in the floodplain or encourage additional occupancy and/or modify of the base floodplain, the Corps has determined that the recommended plan complies with the intent of Executive Order 11988.

Alternative 2 – Repairs resulting from implementation of this alternative plan would result in similar protections as described above for the recommended plan.

The “No Action” Alternative would continue to expose all public and private infrastructure and agricultural croplands previously protected to a high level risk of future flooding.

### **Economics**

With the implementation of the recommended plan, the levees would be restored to a 5 year level of flood protection. Public and private infrastructure and agricultural croplands protected by the levee prior to the flood damage would continue to be protected against a 5-year flood event. Economic conditions are unlikely to change from those of pre-damage levee conditions with the repair of this levee system.

Alternative 2 - In-place repairs. The repairs resulting from implementation of this alternative plan would result in similar protections as described above for the recommended plan. However, this alternative is less cost effective than the recommended plan.

The “No Action” Alternative has a zero benefit to cost ratio and would continue to expose all public and private infrastructure and agricultural croplands previously protected by the levee to a high level risk of future flooding. People’s livelihood and social well-being would remain in turmoil, subject to the continuous threat of flooding until the level of flood protection is restored. Failure to reconstruct the levee could adversely affect the tax base of the counties and municipal governments and special districts, such as school districts. In addition, loss of jobs and potential losses in agricultural production on lands protected by the levee would also be incurred.

### **Aesthetics**

The Recommended Plan would result in very minor and temporary adverse aesthetic impacts associated with the construction activity. The human population that could potentially be affected by the activity would be expected to be very low, restricted to the occasional boater on

the Missouri River or person(s) participating in outdoor recreation on the private land in the project area. Upon completion of the project, the aesthetic impact of the project would be the same as the original levee.

Alternative 2 – In-place repairs. The repairs resulting from implementation of this alternative plan would result longer lasting impacts to esthetics from the introduction of stone protection to the area.

The "No Action" Alternative would have no effect on esthetics.

## **Section 11: CUMULATIVE IMPACTS**

The combined incremental effects of human activity are referred to as cumulative impacts (40CFR 1508.7). While these incremental effects may be insignificant on their own, accumulated over time and from various sources, they can result in serious degradation to the environment. The cumulative impact analysis must consider past, present, and reasonably foreseeable actions in the study area. The analysis also must include consideration of actions outside of the USACE, to include other State and Federal agencies. As required by NEPA, the Corps has prepared the following assessment of cumulative impacts related to the alternatives being considered in this EA.

Historically, the Missouri River and its floodplain has been altered by bank stabilization, dams on the river and its tributaries, roads/bridges, agricultural and urban levees, channelization, farming, water withdrawal for human and agricultural use, urbanization and other human uses. These activities have substantially altered the terrestrial and aquatic ecosystem within the Missouri River watershed.

The USACE, which administers Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, has issued and would continue to evaluate permits authorizing the placement of fill material in the Waters of the United States and/or work on, in, over or under a navigable water of the United States including the Missouri River and its tributaries. These levee repair projects typically result in minor impacts to the aquatic ecosystem. The USACE, under the authority of the Public Law 84-99 Levee Rehabilitation and Inspection Program, has and would continue to provide rehabilitation assistance to Federal and non-Federal levee sponsors along the Missouri River which participate in the Public Law 84-99 Program. These projects typically result in minor short term construction related impacts to fish and wildlife and the habitats upon which they depend. Resources typically affected by this type of project generally include, but are not limited to, wetlands, flood plain values, water quality, and fish and wildlife habitat. It should be noted that these projects do not result in an addition to flood heights or reduced flood plain area but are merely a form of rehabilitation to that which had previously existed.

Of the reasonably foreseeable projects and associated impacts that would be expected to occur, further urbanization of the floodplain would probably have the greatest impact on these resources in the future. The possibility of wetland conversion and the clearing of riparian habitat are ever present, and these activities also tend to impact these resources. The construction of additional

agricultural levees may occur provided land becomes available for this purpose; however, the trend seems to be moving in the opposite direction and towards urban development. The era of major reservoir construction has likely past, thus impacts from these projects likely would not occur.

The adverse effects associated with the proposed project are long-term/minor associated with the loss of agricultural cropland, and short term/minor associated with project construction. These minor adverse effects would be greatly offset by restoring the flood risk management capability and its associated social and economic benefits of the existing levee system. The PL 84-99 Program is designed to merely bring the damaged levees back to pre-existing conditions (i.e., the status quo). Thus, no significant cumulative impacts associated with the proposed rehabilitation of the existing levee system have been identified.

## **Section 12: MITIGATION MEASURES**

The recommended plan would consist of clearing approximately 0.3 acres of early successional woody vegetation and excavations of 0.5 acres of shrub-scrub wetland during borrow operations. Excavation which removes accumulated silt from historic wetland areas is considered beneficial and would enhance the overall function and value of the aquatic ecosystem. No mast producing trees are anticipated to be impacted by borrow or construction activities. The USACE in cooperation with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service has determined that natural plant succession should provide adequate re-vegetation to these areas. Additionally, the levee setback would allow the newly created blow hole to develop into a functional wetland while also adding approximately one acre to the riverward floodplain; therefore, no mitigation is proposed or warranted.

## **Section 13: COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES**

Compliance with Designated Environmental Quality Statutes that have not been specifically addressed earlier in this report is covered in Table 1. Additional information is listed for the most pertinent statutes following Table 1.

## **Section 14: CONCLUSION & RECOMMENDATION**

The Recommended Plan would not result in any impacts to Federally-listed threatened or endangered species or their habitat. No impacts to any properties listed, proposed for listing, or potentially eligible for listing in the National Register of Historic Places are anticipated. However, the Recommended Plan would consist of clearing approximately 0.3 acres of early successional woody vegetation and excavations of 0.5 acres of shrub-scrub wetland during borrow operations. However, the excavation would remove accumulated silt from an historic wetland area and is considered beneficial. In addition, natural plant succession should provide adequate re-vegetation for the woody area utilized for fill. Areas of the existing levee sections damaged by flooding would be temporarily disturbed by the proposed construction activity. The adverse effects associated with the proposed project are long-term/minor associated with loss of agricultural land (approximately one acre) and short term/minor associated with project construction. These minor adverse effects would be greatly offset by restoring the flood risk

management capability, and its associated social and economic benefits of the existing levee system. The Recommended Plan meets the project purpose and need of rehabilitating the flood risk management capability, and its associated social and economic benefits of the existing levee system. Of the three (3) alternatives considered, the Recommended Plan has the highest cost/benefit ratio and is consistent with protection of the human environment.

Based on coordination with the resource agencies and input gained through a public interest review, as documented in this Environmental Assessment, the Kansas City District – Corps of Engineers has made a preliminary determination that this project would have no significant impacts on the human environment including natural and cultural resources and Federally-listed threatened and endangered species; therefore, a Draft Finding of No Significant Impact (FONSI) has been prepared. This NEPA decision document would be forwarded to the District Engineer with a recommendation for approval following the end of public review period.

## **Section 15: PREPARERS**

This EA and the associated draft FONSI were prepared by Ms. Lekesha Reynolds (Environmental Resource Specialist), with relevant sections prepared by Mr. Timothy Meade (Cultural Resources). The address of the preparers is: U.S. Army Corps of Engineers, Kansas City, District; PM-PR, Room 843, 601 E. 12th St, Kansas City, MO 64106.

**Table 1**  
**Compliance of Preferred Alternative with Environmental Protection**  
**Statutes and Other Environmental Requirements**

| <b>Federal Policies</b>   | <b>Compliance</b> |
|---|-------------------|
| Archeological Resources Protection Act, 16 U.S.C. 470, et seq.                  | Full Compliance   |
| Clean Air Act, as amended, 42 U.S. C. 7401-7671g, et seq.                       | Full Compliance   |
| Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.  | Full Compliance   |
| Coastal Zone Management Act, 16 U.S.C. 1451, et seq.                            | Not Applicable    |
| Endangered Species Act, 16 U.S.C. 1531, et seq.                                 | Full Compliance   |
| Estuary Protection Act, 16 U.S.C. 1221, et seq.                                 | Not Applicable    |
| Federal Water Project Recreation Act, 16 U.S.C. 4601-12, et seq.                | Full Compliance   |
| Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.                      | Full Compliance   |
| Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et seq.                 | Not Applicable    |
| Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et seq.           | Not Applicable    |
| National Environmental Policy Act, 42 U.S.C. 4321, et seq.                      | Full Compliance   |
| National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et seq. | Full Compliance   |



|  |                 |
|--|-----------------|
| Rivers and Harbors Act, 33 U.S.C. 403, et seq.                               | Full Compliance |
| Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.       | Full Compliance |
| Wild and Scenic River Act, 16 U.S.C. 1271, et seq.                           | Not Applicable  |
| Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.                      | Full Compliance |
| Protection & Enhancement of the Cultural Environment (Executive Order 11593) | Full Compliance |
| Floodplain Management (Executive Order 11988)                                | Full Compliance |
| Protection of Wetlands (Executive Order 11990)                               | Full Compliance |
| Environmental Justice (Executive Order 12898)                                | Full Compliance |

**NOTES:**

- a. Full compliance. Having met all requirements of the statute for the current stage of planning (either preauthorization or postauthorization).
- b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning.
- c. Noncompliance. Violation of a requirement of the statute.
- d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

**Clean Water Act, Section 404 and 401**

The recommended plan would involve placement of fill material in Waters of the United States and therefore, Clean Water Act, Section 401 Water Quality Certification (Appendix II) and Section 404 are required. However, work would involve excavations of a wetland area for fill during borrow operations, and this work is an action covered under the General Permit No. 41 (Appendix II).

**Clean Water Act, Section 402**

A NPDES permit has been received from Missouri Department of Natural Resources and is located in Appendix II.

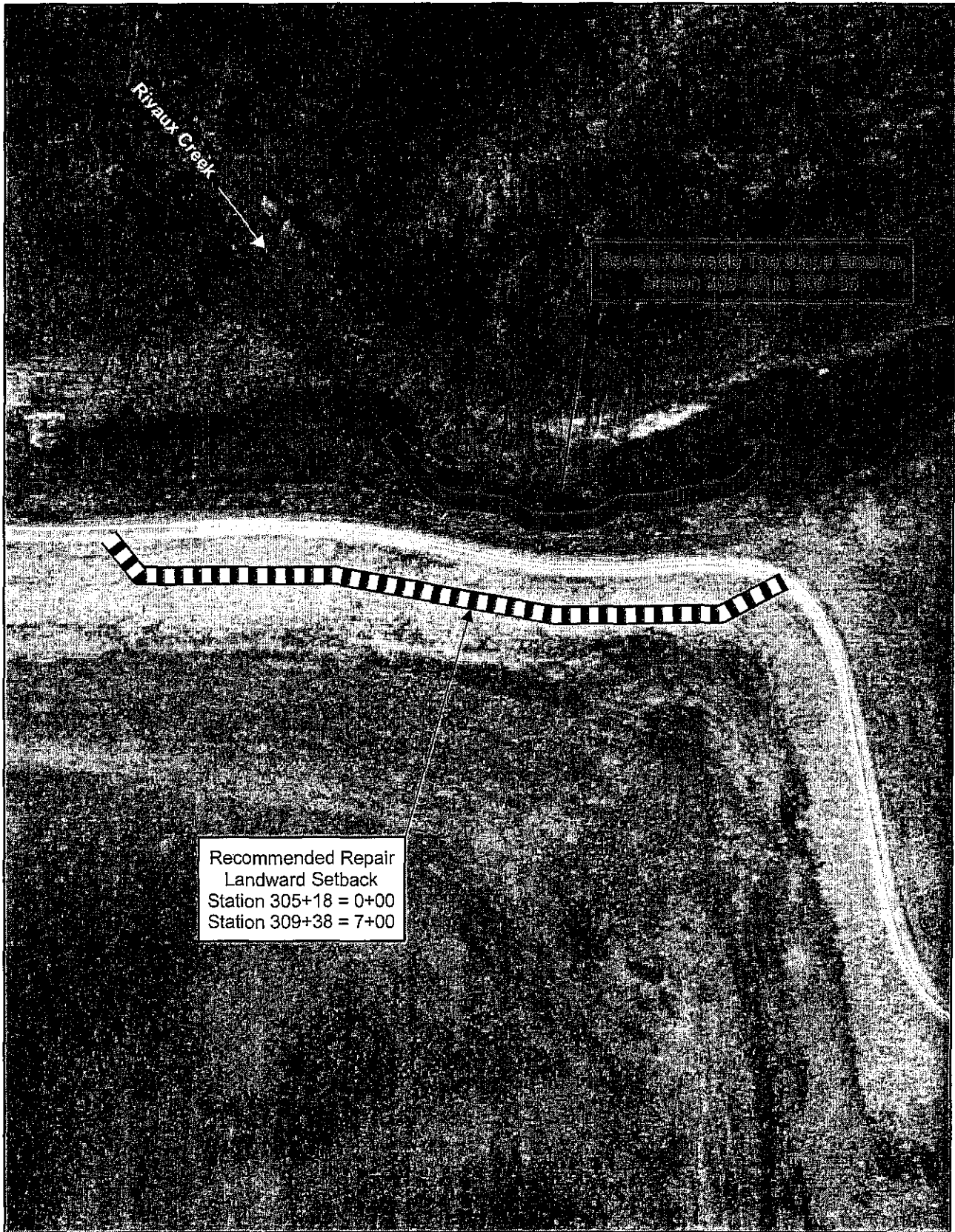
**Endangered Species Act, Section 7**

The Corps of Engineers has made a determination that no impacts to any federally listed threatened or endangered species or their habitat would occur with the project action. The U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008 stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat (Appendix I).

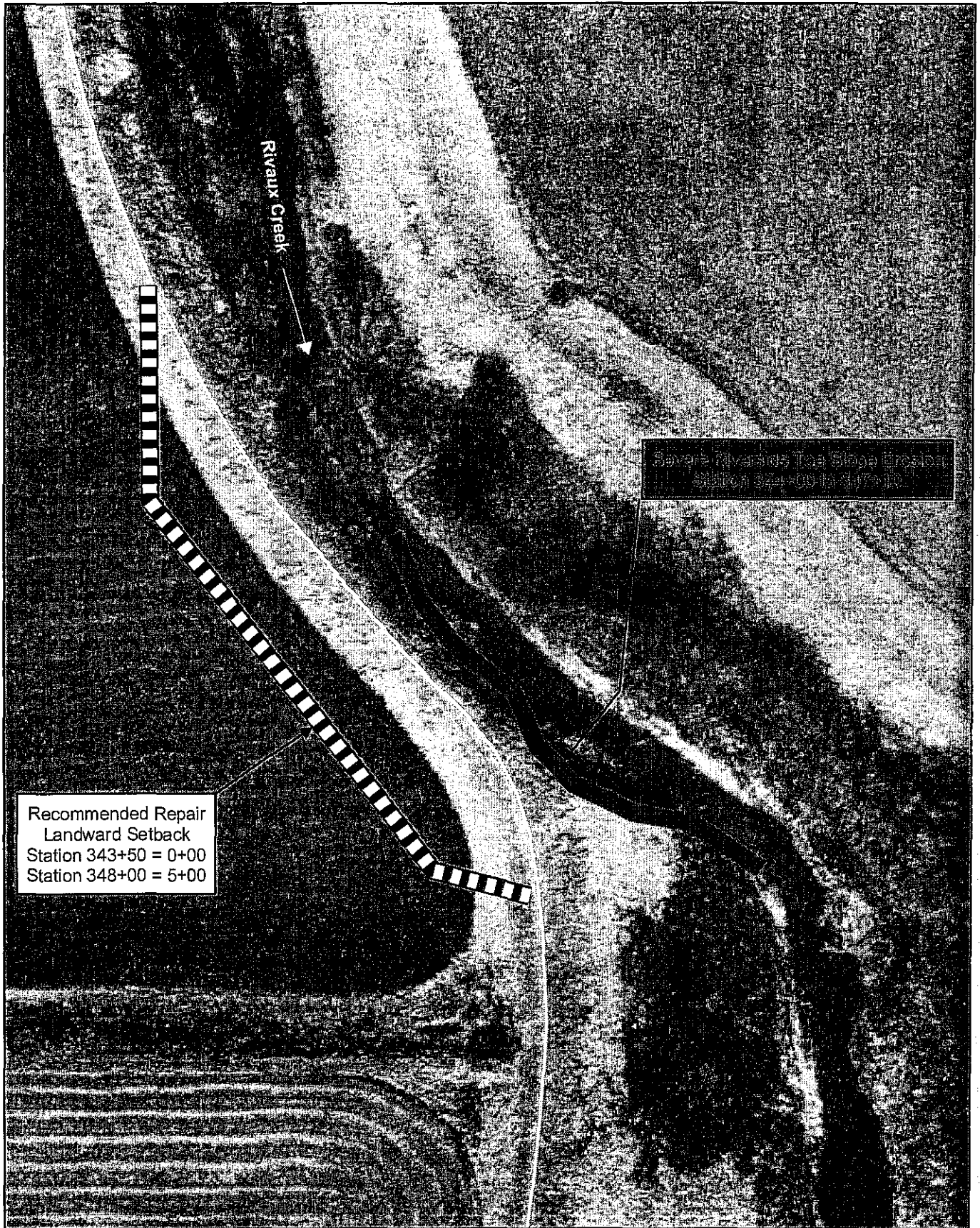
**National Historic Preservation Act**

No sites listed on or eligible for listing on the National Register of Historic Places are located within or near the proposed project area. Coordination with the Missouri State Historic Preservation Office (SHPO) was made on December 4, 2007 (Appendix II).



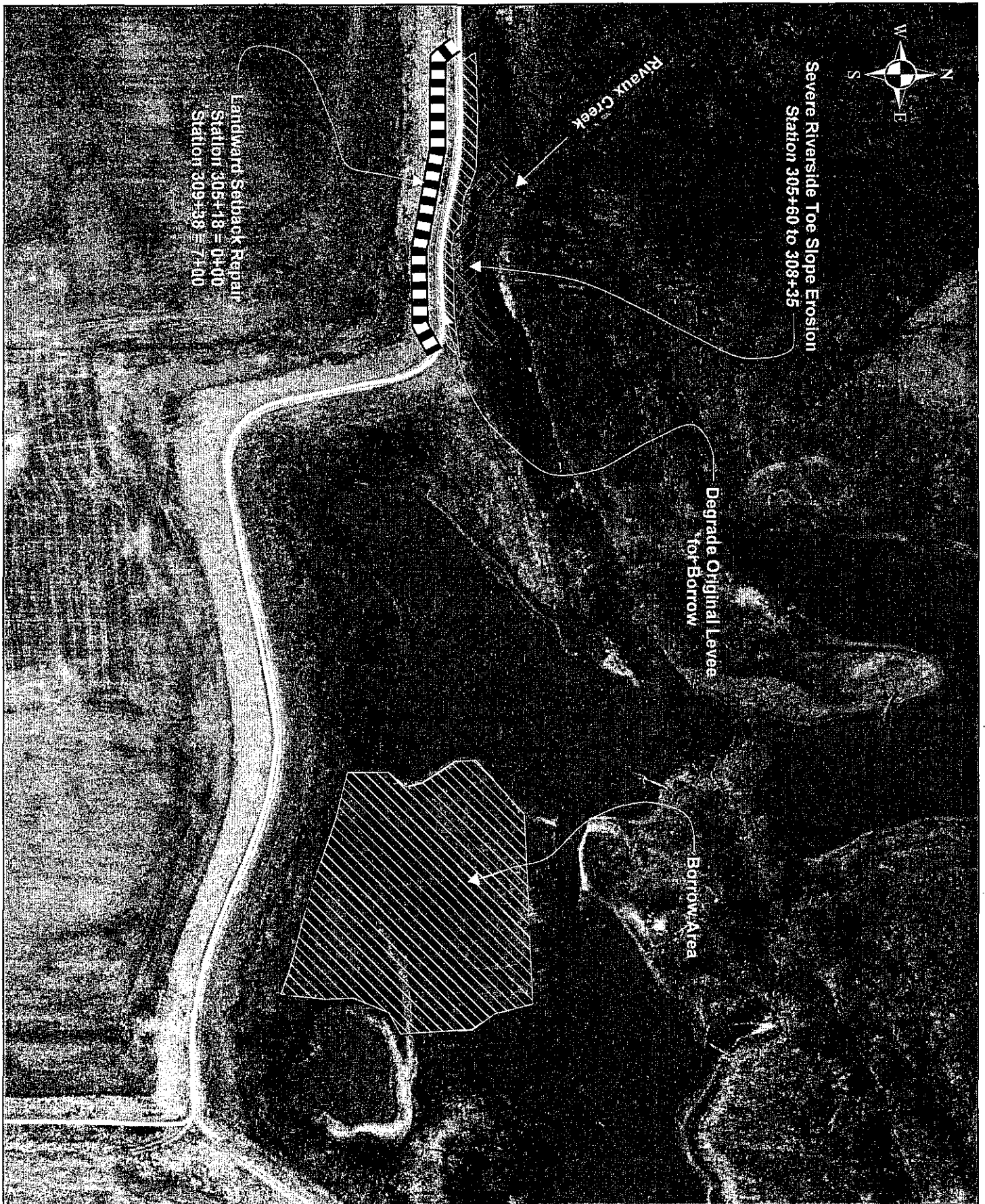


Item 33  
Reveaux Drainage District

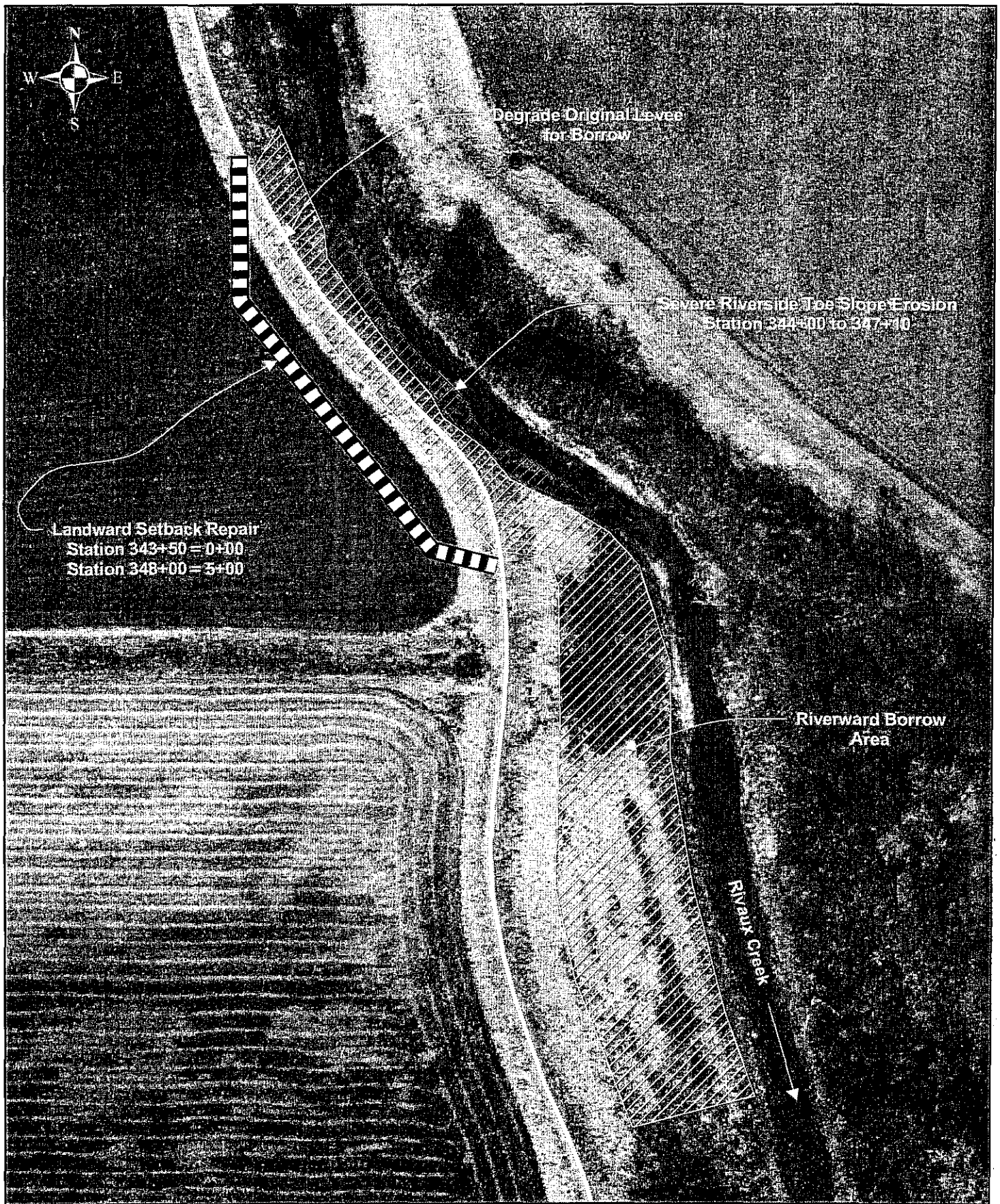


Item 33  
Reveaux Drainage District





Item 33  
Reveaux Drainage District



Item 33  
Reveaux Drainage District

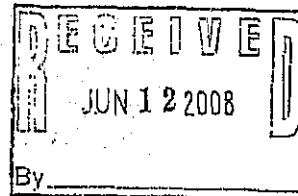
Borrow Map 2

## **APPENDIX II – NEPA REVIEW**

*Reveaux Levee District (Item 33)  
P.L. 84-99 Levee Rehabilitation Project  
Callaway County, Missouri  
May 2008*



DEPARTMENT OF THE ARMY  
KANSAS CITY DISTRICT, CORPS OF ENGINEERS  
700 FEDERAL BUILDING  
KANSAS CITY, MISSOURI 64106-2896



REPLY TO

ATTENTION OF:

June 6, 2008

Planning, Programs and Project Management Division  
Planning Branch

Charlie Scott  
US Fish and Wildlife Service  
101 Park DeVille Drive, Suite A  
Columbia, Missouri 65203

In accordance with provisions of the National Environmental Policy Act of 1969 (NEPA), enclosed for your review and comment is the Environmental Assessment (EA) and Draft Finding of No Significant Impacts (FONSI) for the Reveaux Levee District Emergency Levee Rehabilitation Project.

The Kansas City District - U.S. Army Corps of Engineers (CENWK), in cooperation with the project sponsor, the Reveaux Levee District, propose to construct the Reveaux Levee District Emergency Levee Rehabilitation Project under the authority of Public Law 84-99, of the Flood Control Act of 1944. Under this authority, the Corps of Engineers can provide assistance to public agencies in responding to flood emergencies.

The Reveaux Levee District is located in Callaway County, Missouri, near town of Wainwright, along the left descending bank of the Missouri River from River Mile 139.9 to River Mile 136.7, the left descending bank of Neimans Branch, and the right descending bank of Reveaux Creek.

The proposed project would involve in-place repair of severe toe slope erosion and landward levee setbacks at two locations. Repairs are required as a result of the flood event declared on 6 May 2007.

Written comments on the EA and Draft FONSI should be mailed to Ms. Lekesha Reynolds, Environmental Resources Specialist, Corps of Engineers, Kansas City District, PM-PR, 601 E. 12<sup>th</sup> Street, Kansas City, Missouri 64106-2896, or by phone at (816) 389-3160 or by email at [lekesha.w.reynolds@usace.army.mil](mailto:lekesha.w.reynolds@usace.army.mil). The public review and comment period for the EA and draft FONSI will end 30 days from the date of this letter.

Sincerely,

David R. Hibbs  
Acting Chief, Environmental Resources Section

"The U.S. Fish and Wildlife Service has reviewed the subject proposal and accompanying information and determined that the activity as described is not likely to adversely affect federally listed species or designated critical habitat. Consequently, this concludes section 7 consultation. Please contact the Missouri Department of Conservation (573/522-4115) for state listed species of concern."

Field Supervisor

6/14/08  
Date



STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

[www.dnr.mo.gov](http://www.dnr.mo.gov)

December 4, 2007

Timothy Meade  
Corps of Engineers, Kansas City District  
700 Federal Building  
Kansas City, Missouri 64106-2896

Re: Emergency Repairs, Reveaux Levee (COE) Callaway County, Missouri

Dear Mr. Meade:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.


We have reviewed the information provided concerning emergency repairs to the Reveaux Levee. Based on this review we concur with your recommendation that that the project is in areas of low potential or areas of previous disturbance and that there will be **no historic properties affected**. We have no objection to the initiation of project activities.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number **(001-CY-08)** on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE



Mark A. Miles  
Director and Deputy  
State Historic Preservation Officer

MAM:jd

# PUBLIC NOTICE



**US Army Corps  
of Engineers  
Kansas City District**

**Permit No. GP-41 (2007-2078)  
Issue Date: March 21, 2008**

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**STATES OF MISSOURI AND KANSAS - Including INDIAN COUNTRY  
ISSUANCE OF GENERAL PERMIT (GP) 41  
FLOOD RECOVERY AND REPAIR ACTIVITIES**

The U.S. Army Corps of Engineers, Kansas City District **HAS ISSUED** GP-41 (copy enclosed) for protection and repair of existing flood damaged structures, damaged land areas and damaged fills, under authority of Section 10 of the Rivers and Harbors Act of 1988 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

**Duration of this General Permit:** This GP is issued and is in effect for five (5) years, from March 21, 2008 until March 21, 2013, unless revoked or specifically extended.

**Notification Procedures (Post and Preconstruction):** Preconstruction notification is required by the General Public for all activities involving obtaining borrow from forested wetlands, borrowing material from potential migratory bird nesting areas, clearing trees along stream channels, working in areas with known exotic species, and/or if the proposed repair activity includes restoration of a stream channel back to the original, pre-flood location. Other authorized activities that meet the terms and limits of this GP may proceed without preconstruction notification to the Corps of Engineers. However, post construction reporting is required for all activities undertaken under this GP. See GP Special condition "d" and Appendix I for more information on notification requirements.

**APPLICANT:** General Public

**PROJECT LOCATION:** In waters of the United States in the States of Missouri and Kansas, including Indian Country within Kansas boundaries that are declared flood disaster areas by the Governor of either state and/or the President of the United States of America.

**AUTHORITY:** Section 10 of the Rivers and Harbors Act of 1988 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

**ACTIVITY:** Excavation or placement of fill material for protection and/or repair of existing flood damaged structures, damaged land areas and/or damaged fills as follows: a. Repair of levees to existing elevations and cross-section, including breach closures and borrow operations, b. Bridge embankment protection (armoring) and/or repair, c. Repair of pre-existing highway or railroad embankments and the addition or repair of stone (armoring) protection, d. Repair of pre-existing utility protection structures, e. Placement of rock and/or earth materials for stream/ditch bank protection and/or stream/ditch bank restoration, f. Drainage channel/ditch restoration to

pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event, g. Restoration of creek channels to pre-flooding alignment and capacity, and h. Construction of temporary roads and temporary fills to facilitate the completion of any of the listed activities.

Note: Maintenance of existing flood damaged structures and/or flood damaged fills, which have been previously authorized, may be authorized by Nationwide Permit No. 3 or exempted by Part 323.4 of Federal regulations 33 CFR 320-331. The repair of uplands damaged by storms, floods or other discrete events may be authorized by Nationwide Permit No. 45 upon notification and review by the appropriate Corps of Engineers District, Regulatory Branch.

**INDIAN COUNTRY:** Work under this permit is not authorized in Indian Country until the applicant obtains individual Section 401 Water Quality Certification from the U.S. Environmental Protection Agency (EPA), Region VII, Watershed Planning and Implementation Branch, 901 North 5<sup>th</sup> Street, Kansas City, Kansas 66101 (913-551-7003).

EPA may issue programmatic water quality certification during the authorization period of this permit which ends December 31, 2013. If issued, the Corps of Engineers will announce by public notice and post that certification to the Regulatory Program webpage:  
<http://www.nwk.usace.army.mil/regulatory/regulatory.htm>.

**SECTION 401 WATER QUALITY CERTIFICATION:** Conditions of any individual or programmatic Section 401 Water Quality Certifications issued by the Missouri Department of Natural Resources (MDNR - for Missouri), Kansas Department of Health and Environment (KDHE - for Kansas), and EPA (for Indian Country) are conditions of this GP. General Condition 5 of the GP states: "If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit."

**ADDITIONAL INFORMATION:** Additional information about this general permit may be obtained by contacting Mr. Douglas R. Berka, Regulatory Project Manager, Kansas City District Regulatory Branch (ATTN: OD-R) 700 Federal Building, Kansas City, Missouri 64106, at 816-389-3657 or via email at [Douglas.R.Berka@usace.army.mil](mailto:Douglas.R.Berka@usace.army.mil). All inquiries concerning this public notice should be directed to the above address.

Enclosure

## DEPARTMENT OF THE ARMY PERMIT

Permittee General Public

Permit No. NWK GP-41

Issuing Office U.S. Army Corps of Engineers, Kansas City District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** To excavate or place fill material for protection and/or repair of existing flood damaged structures, damaged land areas and/or damaged fills as follows:

- a. Repair of levees to existing elevations and cross-section, including breach closures and borrow operations
- b. Bridge embankment protection (armoring) and/or repair
- c. Repair of pre-existing highway or railroad embankments and the addition or repair of stone (armoring) protection
- d. Repair of pre-existing utility protection structures
- e. Placement of rock and/or earth materials for stream/ditch bank protection and/or stream/ditch bank restoration
- f. Drainage channel/ditch restoration to pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event
- g. Restoration of creek channels to pre-flooding alignment and capacity
- h. Construction of temporary roads and temporary fills to facilitate the completion of any of the listed activities

Note: Maintenance of existing flood damaged structures and/or flood damaged fills, which have been previously authorized, may be authorized by Nationwide Permit No. 3 or exempted by Part 323.4 of Federal regulations 33 CFR 320-331. The repair of uplands damaged by storms, floods or other discrete events may be authorized by Nationwide Permit No. 45 upon notification and review by the appropriate Corps of Engineers District, Regulatory Branch.

**Project Location:** In Waters of the United States, (rivers, lakes, streams, and wetlands) within the State of Kansas, including Indian Country, and within the State of Missouri that are declared flood disaster areas by the Governor of either state and/or the President of the United States.

### Permit Conditions:

#### General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2013. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See continuation sheets, pages 4, 5, and 6 of this document.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- (x) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (x) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorization required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

**General Public – Signature Not Required**

\_\_\_\_\_  
(PERMITTEE)

\_\_\_\_\_  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
(DISTRICT COMMANDER)

ROGER A. WILSON, JR.  
BY: MARK D. FRAZIER  
Chief, Regulatory Branch  
Operations Division

21 March 2008  
\_\_\_\_\_  
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)



Kathleen Sebelius, Governor  
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH  
AND ENVIRONMENT

[www.kdheks.gov](http://www.kdheks.gov)

Division of Environment

January 31, 2008

Mr. Douglas R. Berka  
U.S. Army Corps of Engineers  
Kansas City Field Office; 700 Federal Building  
601 East 12th Street  
Kansas City, Missouri 64106-2896

Section 401 Water Quality Certification

RE: (2007-0078) PROPOSED REGIONAL GENERAL PERMIT NO. 41 FOR  
EXCAVATION OR PLACEMENT OF FILL MATERIAL FOR THE PERMANENT  
PROTECTION AND/OR REPAIR OF FLOOD DAMAGED STRUCTURES, DAMAGED LAND  
AREAS AND/OR DAMAGED FILLS IN THE STATES OF KANSAS AND MISSOURI.  
PERMITTEES: General Public, Railroads, Transportation Departments, Pipeline and  
Utility Companies and Government Agencies

Dear Mr. Berka:

The Kansas Department of Health and Environment has received your request for  
Section 401 Water Quality Certification. The KDHE has determined the project has the  
following water pollutant discharge sources:

- a. Repair of levees to existing elevations and cross-section, including breach  
closures and borrow operations
- b. Bridge embankment protection (armoring) or repair
- c. Repair of pre-existing highway or railroad embankments and the addition or  
repair of stone (armoring) protection
- d. Repair of pre-existing utility protection structures
- e. Placement of rock and/or earth materials for stream/ditch bank protection  
and/or stream/ditch bank restoration

BUREAU OF WATER – WATERSHED MANAGEMENT SECTION  
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 420, TOPEKA, KS 66612-1367

Voice 785-296-4195 Fax 785-296-5509

<http://www.kdheks.gov/nps/index.html>

f. Drainage ditch restoration to pre-flood capacity and flow line unless the flow line must be altered due to other damage associated with the flood event

g. Restoration of creek channels to pre-flooding alignment and capacity

h. Construction of temporary haul roads to facilitate the completion of any of the listed activities

Discharges from these sources if not minimized or otherwise controlled may cause violations of the provisions of Kansas Water Quality Standards found at KAR 28-16-28 et seq.

Pursuant to Section 401 and KAR 28-16-28(c) the Kansas Department of Health and Environment finds this project will not result in a violation of Kansas Water Quality Standards and herewith issues a Water Quality Certification for execution and subsequent operation of the project subject to the following conditions:

- I. **Limitations of this Certification:** All Section 404 activities within the borders of Indian owned and operated lands are not covered by this certification. Individuals proposing projects which impact those waters are responsible for contacting the appropriate individual at the following numbers:

Prairie Band Pottawatomie Indians, Planning Department, 785/966-2946

Kickapoo Tribe in Kansas, Environmental Office, 785/486-2601

Iowa of Tribe of Kansas and Nebraska, 785/595-3258

Sac and Fox Tribe of Missouri, 785/742-4707

Environmental Protection Agency Region VII Indian Lands Contact,  
913/551-7498

II.

**General Conditions**

1. **Certification Retention:** The applicant shall retain this water quality certification on the project site through the duration of the project to accommodate inspection.
2. **Kansas Water Pollution Control General Permit for Stormwater Runoff from Construction Activities:** This certification does not relieve the applicant of the responsibility to determine if the project is subject to the requirements of **General NPDES Permit** and to secure such permit as necessary. Questions and inquiries may be directed to:



Mr. Larry Hook  
Kansas Department of Health and Environment  
Bureau of Water Industrial Program Section  
1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612-1367  
Phone 785/296-5549; FAX:785/296-5509  
[www.kdheks.gov/stormwater](http://www.kdheks.gov/stormwater)

3. **Project Water Quality Protection Plan:** Any person wishing to use a Section 404 GP 41 Permit shall prepare and follow a written project water quality protection plan (PWQPP.) The PWQPP shall identify components of the permitted activity (i.e. solid waste handling, fuel storage and leaks, sediment from construction etc.) which may or will result in the discharge of pollutants to waters of the state. For each component which may discharge pollutants to waters of the state, the plan shall set out the physical, structural and management measures to be implemented to prevent or minimize the discharge of pollutants to waters of the state. (Activities requiring a construction stormwater permit, as described above, also require a stormwater pollution prevention plan which will serve as the PWQPP.)

**The permittee is required to submit the PWQPP to KDHE only if the project impacts Outstanding National Resource, Exceptional State or Special Aquatic Life Use Waters per condition #4 below.**

- 4 **Outstanding National Resource Waters, Exceptional State and Special Aquatic Life Support Use Waters:** In the event the permitted activity occurs in or within one half (2) mile of an Outstanding National Resource Water as defined pursuant to K.A.R. 28-16-28b(pp) and K.A.R. 28-16-28c(a)B(3), an Exceptional State Water pursuant to K.A.R. 28-16-28b(y) and K.A.R. 28-16-28c(a)B(2), or a Special Aquatic Life Support Use Water designated pursuant to K.A.R. 28-16-28d(b)(2)(A), the person responsible for initiating the activity shall submit a copy of the PWQPP to:

Kansas Department of Health and Environment  
Bureau of Water - Watershed Management Section  
1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612-1367  
[nps@kdhe.state.ks.us](mailto:nps@kdhe.state.ks.us)

A table and state map of **Outstanding National Resource Waters, Exceptional State and Special Aquatic Life Support Use Waters** can be found at:  
<http://www.kdheks.gov/nps/resources/specwaterinfo.pdf>.

The permittee should also be aware of the following Kansas water quality protection regulations associated with special waters:

**K.A.R. 28-16-28c(a)B(2)-A**Wherever state surface waters constitute exceptional state waters, discharges shall be allowed only if existing uses and existing water quality are maintained and protected.@

**K.A.R. 28-16-28c(a)B(3)-A**Wherever state surface waters constitute an outstanding national resource water existing uses and existing water quality shall be maintained and protected. New or expanded discharges shall not be allowed into outstanding national resource waters.@

5. **Solid Waste Disposal:** All solid waste materials produced during the execution of the project shall be disposed in accordance with the provisions of Kansas Solid Waste Management Statutes and regulations and applicable local regulations. Direct inquiries to:

KDHE, Bureau of Waste Management  
1000 SW Jackson Street, Suite 320  
Topeka, Kansas 66612-1366  
Phone: 785/296-1600; FAX: 785/296-1592  
[www.kdhe.state.ks.us/waste/index.html](http://www.kdhe.state.ks.us/waste/index.html)

6. **Equipment Staging Areas and Project Closure:** Upon completion of the project, disturbed areas shall be expeditiously stabilized with temporary and permanent vegetation, bio-artificial ground cover or other appropriate non-polluting material. Fertilizer application to establish and maintain vegetation shall be done in a manner that will not contribute to the current nutrient load to any of the surface waters impacted by the project. The person responsible for the permitted activity shall monitor and maintain cover materials until such time as the site is stabilized. Project closure procedures shall be documented in the Project Water Quality Protection Plan per condition No. II. 3.
7. **Riparian Areas:** Minimize removal or disturbance of riparian areas (areas adjacent to water bodies). KDHE encourages the use of vegetation consistent with adjoining vegetation materials to minimize impacts from improper handling of fertilizers and pesticides.
8. **Discharge of Floatable Materials:** Pursuant to K.A.R. 28-16-28b (uu)(1), (3) and (4), the person responsible for executing the permitted activity shall assure good house keeping is practiced at the site to minimize the discharge of floatable materials such as personal refuse including food containers, packing materials, and other litter. Appropriate measures shall be taken to capture and/or recover any floatable materials discharged to waters of the state originating with the permitted project.

9. **Fuel, Chemical and Materials Storage:** Fuel, chemical and other materials stored at the project site shall be stored in a manner that minimizes the discharge of product to waters of the state. Spill minimization and prevention measures and procedures shall be documented in the Water Quality Protection Plan.
10. **Spill Response and Reporting:**
  - 1.) **Spill response and cleanup:** In the event a spill of fuel, chemical or other water quality degrading materials stored or transported on the site occurs, the permittee shall or with the assistance of professional response personnel, expeditiously control or contain the spill and initiate clean up procedures. The applicant shall immediately contact 911. Spill response and cleanup actions shall be documented in the PWQPP. The applicant should also contact the appropriate Kansas Department of Health and Environment [www.kdhegov/befs/#districts](http://www.kdhegov/befs/#districts) or look in your local phone directory) to confirm cleanup activities. Finally, KDHE strongly encourages the permittee to establish and post a sign that includes phone contact numbers for the appropriate local emergency response unit, KDHE district office, and the project manager/owner.
  - 2.) **Reporting:** The Kansas Department of Health and Environment shall be notified of all fuel spills or unauthorized discharge of pollutants immediately. Contact KDHE at 785/296-1679, anytime for spill reporting requirements. The Kansas Adjutant Generals Office should also be contacted (785/296-8013) as well as the National Spill Response Center (1-800-424-8802).
11. **Drinking Water Intakes:** The person responsible for the permitted activity shall avoid adverse impacts on public water supplies. Whenever permitted activities occur within one mile upstream of a public drinking water supply - surface water intake, the applicant shall contact the official in charge of the public drinking water supply to apprise the drinking water supply official of the permitted activity. The person responsible for the permitted activity shall consider the suggestions and recommendations of the public water supply official when preparing the PWQPP.
12. **Treated Wastewater Effluent Mixing Zones:** As a general guideline any Section 404 activity within one-half (2) mile upstream or one-half (2) mile downstream of a permitted wastewater effluent discharge may impact the effluent mixing zone. The person responsible for the permitted activity shall determine if the project will adversely impact the wastewater effluent mixing zones and take appropriate measures to avoid altering or changing the mixing zone. This may include but is not limited to:

- 1) The construction or placement of a recreation oriented facility or structure (i.e. boat ramp, walkway) which may require modification of the beneficial use designation to accommodate contact or non-contact recreation, thereby increasing the effluent limitations for the permit.
- 2) Any activity which may alter or remove the stream channel geometry or natural oxygenation abilities of the stream such as bridge construction, channelization, stream channel substrate modification etc.

The person responsible for the permitted Section 404 activity shall advise and describe to the waste water discharge permittee and KDHE any potential mixing zone impacts and the measures the person responsible for the Section 404 activity will take to minimize adverse impacts on the mixing zone. Inquiries should be directed to:

Kansas Department of Health and Environment  
Bureau of Water - Municipal Programs Section  
1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612-1367  
Phone: 785/296-5527; FAX: 785/296-5509

13. **Total Maximum Daily Load:** Any Section 404 activity within a watershed with a Total Maximum Daily Load (the amount of pollution a water body can receive and maintain its designated uses: see <http://www.kdheks.gov/tmdl/index.htm>) is strongly encouraged to contact the assigned KDHE watershed field coordinator. A service area map for the three watershed field coordinators is attached (see [www.kdheks.gov/nps](http://www.kdheks.gov/nps)) once construction is started.

### III. Special Conditions for Specific Nationwide Permits

1. **Outfall Structures and Maintenance (construction):**  
Controls shall be in place to stabilize all areas of the bed and bank around the pipe or adjacent to the outfall structure and associated intake structures that may be affected by outfall or stream flows, respectively.
2. **Maintenance; Utility Line Activities; and -Minor Discharges (pipelines included):**  
Hydrostatic tests for pipeline activities shall be approved prior to discharge of water used for the test. Please contact:

Kansas Department of Health and Environment  
Bureau of Water - Industrial Program Section  
1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612-1367  
Phone 785/296-5553; FAX: 785/296-5509

3. **Aquatic Habitat, Restoration, Establishment and Enhancement Activities and Stormwater Management Facilities):** Measures shall be implemented to assure impounded waters, created by activities within the framework of these permits, avoid becoming public health threats, nuisances, generate complaints, and potentially discharge degraded water. The applicant shall prepare and implement an Operations and Maintenance Plan for Facilities and Landscapes (O&M), which at the minimum incorporate the following:
- A. Identify individual and public property owners and their potential for being the source of nonpoint source pollution. This could include but is not limited to: commercial grounds, streets, right-of-ways, parking areas, conservation easement and **proposed** mitigation areas etc.
  - B. For each property as described in item A. above, water quality protection measures for each category of artificial source of pollution identified. The identified water quality protection measure for each category of artificial source of pollution shall be designed to *reduce to the maximum extent practicable, the level of pollution resulting from identified pollutant sources*. Identified water quality protection measures shall be at least as effective as those set out by the Kansas Nonpoint Source Pollution Management Plan (<http://www.kdheks.gov/nps/resources/2000update.pdf>), prepared and maintained by the Kansas Department of Health and Environment.
  - C. Strategies to assure implementation of the water quality protection measures identified under item II. 3-10 which may include but are not limited to prohibition or restriction of activities, utilization of alternative technologies or products, information and education, financial assistance, technical assistance, enforcement and penalties. Additionally, an in-house reporting form used by staff to document degraded property conditions potentially impacting the property and needs to address them should be developed, if applicable.
  - D. Organizations and individuals responsible for assuring implementation of the identified water quality protection measures.

#### IV. **Enforcement and Penalties**

This certification does not relieve the applicant of the responsibility for any discharge to waters of the state or allow for any inappropriate discharge to occur. As provided for by K.S.A. 65-171(f), failure to comply with the conditions of this certification may subject the responsible party to fines of \$10,000 per violation with each day the violation occurs constituting a separate violation.

**V. Variance**

If the applicant believes the conditions of this certification will result in impairment of important widespread social and economic development, the applicant is advised of the variance provisions of KAR 28-16-28b(III) and KAR 28-16-28f(e).

**VI. Additional Information**

The KDHE website contains the following information to assist the applicant in preparing a project water quality protection plan:

\*Construction practices: <http://www.dnr.mo.gov/env/wpp/wpcp-guide.htm>

\*Project Water Quality Protection Plan Form and Instructions:  
<http://www.kdheks.gov/nps/resources/nwpwqppfrm.doc> or  
<http://www.kdheks.gov/nps/resources/nwpwqppfrm.pdf>

\*Kansas Surface Water Register:  
[http://www.kdheks.gov/befs/download/Current\\_Kansas\\_Water\\_Register.pdf](http://www.kdheks.gov/befs/download/Current_Kansas_Water_Register.pdf)

\*Kansas Surface Water Maps:  
[http://www.kdheks.gov/befs/download/2006\\_Surface\\_Water\\_Register\\_Maps.pdf](http://www.kdheks.gov/befs/download/2006_Surface_Water_Register_Maps.pdf)

Surface Water Quality Standards- [http://www.kdheks.gov/water/28\\_16\\_28b\\_g.pdf](http://www.kdheks.gov/water/28_16_28b_g.pdf)

\*KDHE District Offices- <http://www.kdheks.gov/directions/index.html>

The Kansas Department of Health and Environment, Bureau of Water-Watershed Management Section at: 785/296-4195 or FAX 785/296-5509. This information can also be obtained by written communication directed to:

Kansas Department of Health and Environment  
Bureau of Water - Watershed Management Section  
1000 SW Jackson Street, Suite 420  
Topeka, Kansas 66612-1367 or email: [nps@kdhe.state.ks.us](mailto:nps@kdhe.state.ks.us)

U.S. Army Corps of Engineers, KC District  
MO-R100043, Various County



Matt Blunt, Governor • Doyle Childers, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

NOV 30 2007

U.S. Army Corps of Engineers, KC District  
700 Federal Building, 601 E. 12th Street  
Kansas City, MO 64106

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing a General State Operating Permit for U.S. Army Corps of Engineers, KC District.

Please review the requirements of your permit. Monitoring reports that may be required by this permit must be submitted on a periodic basis. Copies of the necessary report forms, if required, are enclosed and should be mailed to the regional office listed below. Please contact that office for additional forms.

This General Permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits and letters of approval for the discharges described within. In all future correspondence regarding this permit, please refer to your general permit number as shown on page one of your permit.

If you were affected by this decision, you may appeal to have the matter heard by the administrative hearing commission. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission.

If you have any questions concerning this permit, please do not hesitate to contact the Water Protection Program at PO Box 176, Jefferson City, MO 65102 (573) 751-1300.

Sincerely,

WATER PROTECTION PROGRAM

NPDES Permit and Engineering Section

Enclosure

RECEIVED  
REGULATORY BRANCH  
07 DEC -5 PM 2:30

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT  
WATER POLLUTION CONTROL PROGRAM**

General Operating Permit

In compliance with the Missouri Clean Water Law, (chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.: MO-R100043

Owner: U.S. Army Corps of Engineers, KC District  
Address: 700 Federal Building, 601 E. 12th Street  
Kansas City, MO 64106

Continuing Authority: Same  
Same

Facility Name: U.S. Army Corps of Engineers, KC District  
Facility Address: 700 Federal Building, 601 E. 12th Street  
Kansas City, MO 64106

Legal Description: See Page 2, Various County

Receiving Stream: See Page 2  
First Classified Stream: See Page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein.

**FACILITY DESCRIPTION** All Outfalls, SIC 1629

Construction or land disturbance activity (e.g., clearing, grubbing, excavating, grading, and other activity that results in the destruction of the root zone) that are performed by or under contract to a city, county, or other governmental jurisdiction that has a storm water control program for land disturbance activities that has been approved by the Missouri Department of Natural Resources.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System, it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law

May 31, 2007

Effective date

November 30, 2007

Issue date

*Doyle Childers*

Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

May 30, 2012

Expiration date

MO 780-1481 (7-94)

*Edward Galbraith*

Edward Galbraith  
Director of Staff, Clean Water Commission



Page 2  
Permit Number MO-R100043

This permit accompanies the applicant's General Permit 41 (GP0-41) for the repair of levees due to damages from flooding.

Repair activities may take place anywhere along the Missouri and Grand Rivers and tributaries thereof. Location would be in any county along these waterways from Rulo Nebraska to Saint Louis Missouri.

Detailed receiving stream information is available upon request.